The October 2003 issue of INFO *featured a case study on the nation's first LEED™-certified affordable housing project in Seattle's Belltown neighborhood. This month we highlight Seattle's new City Hall, designed to achieve LEED™ Silver certification.*

case study

seattle city hall

the People's Hall

The new City Hall is located at 600 Fourth Avenue above the old Munipical Building. It was designed to endure 100 years, with the ability to adapt to changing City services and technology.

This is a building that will truly foster citizen participation. It's open and transparent. People can come in large groups or small to celebrate diversity or debate current issues.

—Mayor Greg Nickels

Overview

Seattle's new City Hall was designed to express the spirit and values of Seattleites and to reflect the natural environment. It successfully achieved these goals by connecting people to the outdoors with natural light and views, conserving energy and water, protecting resources, reducing waste, using recycled materials, and creating healthy indoor spaces.

The new building also fosters public participation. It features indoor and outdoor spaces that flow in and out of one another, punctuated by the lobby, which will serve as an indoor civic square and the City's "front porch." This public realm uses glass to create spaces that encourage openness through transparency and connection with the ever-changing Seattle sky. The side walls of the Council chamber are glass, as is the pedestrian bridge (part of Seattle's Public Arts program) that links Council Chambers to offices. Live video feeds to an overflow assembly area and taped video to the city's web and cable stations to increase options for public involvement.

Sustainably built facilities are made from durable materials and have flexibility to adapt to future needs. Often referred to as "long life and loose fit," this approach helps get the most out of resources and avoid waste, or even the need to recycle. The new City Hall was designed to endure for 100 years, with the ability to adapt to changing City services and technology. It replaces the Municipal Building which saw only 40 short years of use. The old building lacked flexibility, a sense of civic place, and earthquake safety. According to the Hall's architect, Greg Hepp, "If the (new) building becomes loved and appreciated, then people will want to keep it for 100 years."

Social Sustainability

Sustainability principles address not only environmental and economic issues, but also social concerns, working to ensure vibrant and healthy communities and workplaces, quality of life, and social equity. In this spirit City Hall features public space for large public events or informal gatherings, exterior lighting designed to prevent light pollution, artworks commissioned through Seattle's Public Art Program and accessible to community members, and a barrier-free design that ensures equal access for all and exceeds ADA requirements.

Quality Indoor Environment

Indoor environments that promote health and make people feel good require comfort, access to daylight and views, and good indoor air quality. City Hall created a great environment by using the following design features and strategies: low toxic adhesives, sealants, paints, coatings; entryway systems that capture contaminants from people's shoes before entering the building;

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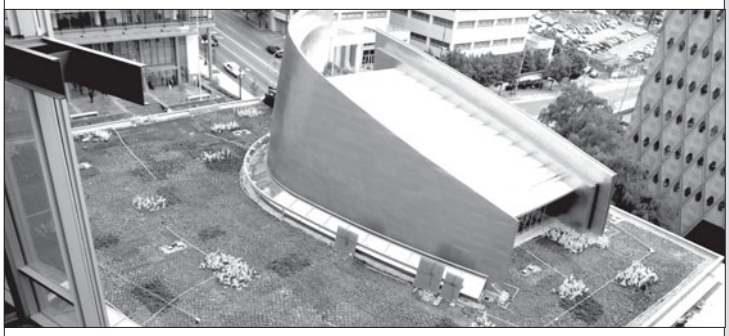
The "living roof" outside the City Council Chambers features vegetation that absorbs rainwater and slows peak flows.



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effective ventilation system with optimal ventilation rates; fresh air intakes far from contamination sources; monitors that allow for adjustments in ventilation system to protect air quality; copier room spaces and chemical storage/housekeeping areas are separately ventilated. They also implemented an indoor air quality-management plan during construction and mandated a two-week "flush" of interior spaces with 100% outside air before the occupants moved in, to help remove contaminants associated with construction activities and newly finished materials.

Salmon-Friendly Building

The City aims to increase the numbers of juvenile salmon migrating out of Seattle's fish-bearing creeks. As salmon are part of a complex ecological system, they can be affected by demands for hydropower and drinking water, water quality, and disruptions due to global warming. City Hall is contributing to a healthy salmon habitat by installing both a living, vegetated roof that absorbs rainwater and slows peak flows and a rainwater collection system that reduces stormwater runoff by 75% and reduces potable water demand.

Environmental issues rate highly for Seattle's citizens. When asked what makes the Northwest different from the rest of the country, Seattle residents said "the land and the environment." In fact, 60 percent said they wouldn't move if offered a better-paying job elsewhere.

Resource Conservation

- **Energy & Water Savings:** City Hall took advantage of various energy-related incentives totaling approximately $140,000 for features such as high efficiency water chillers, an under-floor air supply system, state of the art HVAC and lighting controls, and high-efficiency lighting, as well as a water-related grant.
- ***Water Use:*** Drip irrigation in landscaping, waterless urinals, low-flow lavatories and toilet fixtures are used to reduce water needs.
- ***Customized Façades, Daylighting:*** The building is designed to take advantage of natural daylight, decreasing the need for artificial light. Different façade treatments are used to respond to varying conditions of the site and the sun, shaping a building that responds to nature.
- ***Raised Floor System:*** In the office areas, a raised floor system creates sub-floor space for the distribution of supply air, electrical wiring and data cabling. Special floor diffusers deliver fresh air into the occupant's working height, and allow the occupants to control the ventilation and temperature for personal comfort. Displacement systems have higher energy efficiency due to lower distribution fan speeds and less extreme heating and cooling air temperatures.
- ***Efficiency Elevators:*** Elevators use a direct drive, permanent magnet motor that decreases energy use by up to 50% over standard hydraulic elevators.
- ***Construction Waste Recycling:*** By weight, over 75% of contruction waste generated was recycled.
- ***Recycled-Content Materials:*** A variety of recycled content materials were used in the building, including structural and ornamental steel, carpet, ceiling tiles, gypsum wallboard, concrete with high post-industrial content of fly ash, restroom partitions made of recycled HDPE plastic grocery bags, and ceramic tile.
- ***Local or Regional Materials:*** Locally and regionally produced materials that support the local economy and reduce transportation impacts used on the project include curtain wall, gypsum board, ceiling tiles, concrete, casework and cabinetry, ornamental metal work, and steel structural shapes.

Getting More Info

To learn more about City Hall visit *www.seattle.gov/civic/chcityhall.htm* and *www.seattle.gov/sustainablebuilding/docs/City_Hall.pdf*.

To view a current list of City LEED™ projects visit *www.seattle.gov/sustainablebuilding/cityprojects.htm*. To learn about the City's Sustainable Building Program visit *www.cityofseattle.gov/sustainablebuilding*. For details on incentives visit *www.seattle.gov/light/conserve* or *www.seattle.gov/util/RESCONS*.

To explore DPD's role visit *www.seattle.gov/dpd/sustainability* or contact:

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